

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

ASCION, LLC and MARTIN RAWLS-MEEHAN,)
Plaintiffs,) Civil Action No. 09-10293-GAO
v.)
RUOEY LUNG ENTERPRISE CORP. and)
LUNG-TAN SHIH,)
Defendants.)

)

RUOEY LUNG ENTERPRISE CORP.,) Civil Action No. 09-11550-GAO
Plaintiff,)
v.)
TEMPUR-PEDIC INTERNATIONAL INC.,)
TEMPUR-PEDIC SALES, INC., TEMPUR-PEDIC)
NORTH AMERICA LLC, OPTIMA)
HEALTHCARE, INC. and APEX HEALTH)
CARE MANUFACTURING INC.,)
Defendants.)

)

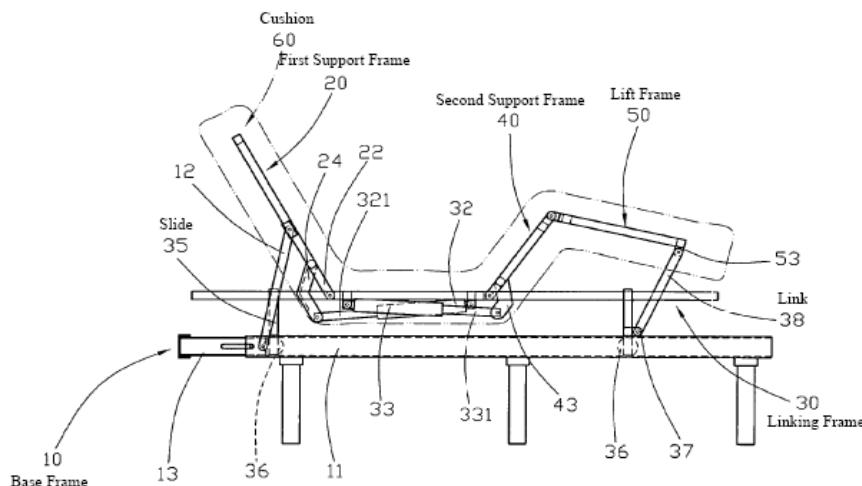
OPINION AND ORDER
October 25, 2010

O'TOOLE, D.J.

Ruoey Lung Enterprise Corporation ("Ruoey Lung") holds United States Patent No. 7,448,100 (the "'100 Patent"), entitled "Motorized Bed that is Movable Closer to the Wall" (filed June 21, 2006). At issue in these two consolidated actions is whether motorized beds manufactured by Ascion LLC, Tempur-Pedic International, Inc., Tempur-Pedic Sales, Inc., Tempur-Pedic North America LLC, Optima Healthcare, Inc., and Apex Health Care

Manufacturing, Inc. (collectively, the “the Ascion defendants”)¹ infringe the ’100 Patent (as well as whether the patent is valid).

The ’100 Patent claims a motorized bed that moves the cushion and the user closer to the wall when adjusted to a sitting position. The ’100 Patent has eighteen claims, three of which (claims 1, 14, and 18) are independent claims. Each independent claim, and its dependents, requires the bed to include a “cushion” and various “frames,” including a “base frame,” a “linking frame,” first and second “support frames,” and a “lift frame.” The image below depicts a preferred embodiment.



(’100 Patent fig. 7 (text added).)

The parties stipulated to the meaning of one claim term, “motor,”² but they dispute the meaning of fifteen other claim terms. The parties have requested that the Court determine the proper construction of these fifteen terms in accordance with Markman v. Westview Instruments,

¹ For clarity’s sake, these parties are referred to as the “Ascion defendants” even though Ascion LLC is the plaintiff in the first-filed action for a declaratory judgment.

² The parties agree that “motor” means “a device that provides vibration to the cushion.” (Joint Cl. Construction Br. & Prehearing Statement 7.)

Inc., 517 U.S. 370 (1996). After hearing and consideration of the parties' submissions, the disputed claim terms are construed as set forth in this Opinion and Order.

I. Claim Construction Framework

In construing terms used in patent claims, a court seeks to determine "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc). Claim construction begins "by considering the language of the claims themselves," Bradford Co. v. Conteyor N. Am., Inc., 603 F.3d 1262, 1269 (Fed. Cir. 2010), but "claims must be read in view of the specification, of which they are a part," Phillips, 415 F.3d at 1315 (internal quotation omitted). Extrinsic evidence – including dictionaries, treatises, and expert testimony³ – may also be considered in some circumstances, Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996), but such evidence "is less significant than the intrinsic record in determining the legally operative meaning of disputed claim language," C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 862 (Fed. Cir. 2004) (internal quotation omitted).

II. Claim Construction of Claims 1, 14, and 18 of the '100 Patent

Each of claims 1, 14, and 18 begins with the following common language:

A motorized bed, comprising:
 a base frame;
 a linking frame movably mounted on the base frame;
 a first support frame pivotally mounted on the linking frame;
 two first links each pivotally mounted between the base frame and the first support frame;
 a second support frame pivotally mounted on the linking frame;
 a lift frame pivotally mounted on the second support frame;
 two second links each pivotally mounted between the linking frame and the lift frame;

³ The Court affords no weight to the declaration of Glen Stevick, Ph.D., Ruoye Lung's expert. His declaration offers nothing more than conclusory and unsupported assertions as to how claim terms should be construed. See id., 415 F.3d at 1318 ("[C]onclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court.").

a cushion mounted on the linking frame and having a first portion mounted on the first support frame to move therewith and a second portion mounted on the second support frame and the lift frame to move therewith;

'100 Patent 4:27-42, 5:48-6:13, 6:31-46. Each independent claim then concludes with a "wherein" clause that distinguishes it from the others.

A threshold issue must be addressed before turning to the disputed claim terms. Ruoeuy Lung asks the Court to construe certain phrases as a whole, e.g., "a first support frame pivotally mounted on the linking frame" whereas the accused defendants ask the Court to construe separately the elements of those phrases, e.g., "a first support frame," "pivotally mounted," and "linking frame." How much phrase-fractionating needs to be done to properly construe the claims of a patent may vary from case to case. In this case, because the shorter elements recur in the claims in different combinations, it makes sense to address them directly. This assures compliance with the well-established tenet of claim construction that "a word or phrase used consistently throughout a patent claim should be interpreted consistently." See Phonometrics, Inc. v. N. Telecom, Inc., 133 F.3d 1459, 1465 (Fed. Cir. 1998). In any event, this may be more a theoretical problem than an actual one since even Ruoeuy Lung acknowledges that its proposed constructions do not change whether a whole phrase or a shorter element is the focus of construction.

A. "Cushion"

Each independent claim describes a "cushion" that is mounted so as to move with the "support frames" as they are adjusted and elevated to permit the user to sit up with his legs supported. '100 Patent 4:39-42. The Ascion defendants propose defining the cushion as a "mattress," which seems sensible enough since the invention is, after all, describing a "motorized bed." Ruoeuy Lung resists that simple synonym, however, apparently out of concern that

“mattress” implies a rigid or unbendable structure. (An unbendable “cushion” will not work in this invention, of course, much of the point of which is to bend the cushion.) Mattresses may come in a variety of designs and compositions, and while relative rigidity may be a not uncommon feature, it is not an essential one; a pliable mattress is not an oxymoron. Cushions also, one may suppose, may be more or less rigid, more or less pliable.

As used in the ’100 Patent, the term “cushion” probably needs no construction. To settle the argument, however, it will be construed to mean “a pliable mattress cushion.”

B. “Mounted”; “Pivotal Mounting On/Between”; “Movably Mounted”

1. “Mounted”

The patent describes various elements as being “mounted” on or between other elements. Ruoeuy Lung contends that “mounted” has an ordinary meaning and need not be construed, but if construction is necessary, it should be construed as “a connection of one element to another, either directly or indirectly.” The Ascion defendants construe “mounted” as “a direct physical attachment of an element to a supporting element.” The parties’ dispute has two aspects: first, whether the attachment must be direct or can be indirect; and second, whether the attachment must be to a “supporting element.”

Once again, the parties’ positions are actually not as far apart as might seem from the arguments advanced. Both recognize that “mounting” requires a physical “connection” (Ruoeuy Lung) or “attachment” (“Ascion”) of one element to another. There is no dispute that an element that is “directly” attached to another may be said to be “mounted” on it. How “indirect” a connection or attachment may be and still be a connection or attachment is a matter to be assessed on particular facts about a specific embodiment, rather than a matter of general definition. For instance, one might refuse to say that the front bumper of a car is mounted on the

rear bumper because it is “indirectly” connected or attached by reason of their mutual connection to the intervening body of the car. On the other hand, one would have no trouble in saying that a picture was mounted on a wall when it was hung on a hook that was affixed to the wall. In the latter example, one could have a theoretical argument about whether the attachment was direct or indirect, like the parties’ argument about whether the connection between the “drive cylinder” and the “first support frame” in claim 2 is direct or indirect, but that argument is really beside the point. The real question is whether the relationship between element A and element B is such that it is accurate to say that A is “connected” or “attached” to B. That is ultimately a question for the trier of fact.

To keep this controversy from recurring at the fact-finding stage, however, it is practical to adopt a definition that sets aside that possibility. For purposes of this patent, an element may be said to be “mounted” if it is “attached or affixed to another element either directly or by means of a device or structure that facilitates or accomplishes the attachment.”

The Ascion defendants also propose that the term “mounted” should be construed to require that an element be mounted to a “supporting element.” “Mounted” is used two different ways in the ’100 Patent—“mounted on” and “mounted between.” When one element is described as “mounted on” another element, it is appropriate to say that the second element supports the first by receiving it and is thus fairly described as a “supporting element.” So much is implicit in the preposition “on.” The same is not true, however, when an element is described as “mounted between” other elements. Adding a “supporting element” limitation is unnecessary. The plain meaning of the terms “mounted on” and “mounted between” is sufficient to understand what is claimed.

2. “Pivotsly Mounted”

There is no real dispute between the parties as to the meaning of “pivotally mounted.” An element is “pivotally mounted on” another element if it is mounted in a way that permits the mounted element to pivot in relation to the supporting element. An element is “pivotally mounted between” two other elements if it is mounted in a way that permits it to pivot in relation to either or both of the other elements.

3. “Movably Mounted”

One of the elements in each of the independent claims is “a linking frame *movably mounted on* the base frame.” ’100 Patent, 4:29, 5:50, 6:33 (emphasis added). Ruoeuy Lung argues that “movably mounted on” means simply that one element, i.e., the linking frame, is able to move in relation to another element, i.e., the base frame. The Ascion defendants contend that the movement must be guided and linear. Neither is quite right.

Ruoeuy Lung’s proposal is too general and unrelated to the claimed invention. The purpose of the invention is to move the bed laterally when a portion of it is elevated to permit the user to sit up so that the user is closer to a wall or a cabinet than he would be if the bed did not move. To serve that purpose is why the linking frame is “movably mounted on” the base frame. The movement to be facilitated by the “movable mounting” is not any movement, but movement that will accomplish the object of the invention.

On the other hand, the Ascion defendants’ proposed construction unnecessarily and improperly reads in limitations from the preferred embodiments. In the disclosed embodiments, the linking frame moves in a linear direction on rollers along guide tracks. None of those features is necessary to achieve the purpose of the invention, which is to permit the linking frame and the

superstructure of the bed to move laterally – that is, toward the head or foot of the bed – with respect to the base frame, and none is to be regarded as a limitation.

As used in the phrase “a linking frame movably mounted on the base frame,” the term “movably mounted” means “mounted in such a way as to permit the linking frame to move laterally (that is, toward the head or foot of the bed) in relation to the base frame.”

C. “Frame”; “Base Frame”; “Linking Frame”; “First/Second Support Frame”; “Lift Frame”

1. “Frame”

Each time the claim language uses the term “frame,” it is accompanied by a modifier, to describe a particular frame: base, linking, support, lift. The generic definition of “frame” is thus not directly in issue, but only insofar as it is part of one of the more specific terms used in the claims. In each of those compound terms, “frame” as constituent term can be understood in its ordinary meaning: “a skeletal structure.”

2. “Base Frame”

Ruoey Lung suggests construing “base frame” as “the structure that supports the linking frame.” The Ascion defendants would construe “base frame” as “a stationary section of the frame.” The parties’ dispute centers on whether the “base frame” is stationary. Again, it is something of a false dispute.

Ruoey Lung is correct that the base frame need not be stationary in the sense that it can never be moved, that is, in the sense that it could not, for example, have legs with casters. But the Ascion defendants are also correct that the base frame remains stationary in the operation of the invention. As noted above, the object of the invention is to move the superstructure of the bed toward the wall at the head of the bed when the supporting frames are raised. To accomplish this it is necessary for the linking frame to move laterally in relation to the base frame.

Concomitantly, it is necessary for the base frame to be stationary in relation to the linking frame's movement for this purpose. Whether the base frame can be on wheels so that the whole bed can be moved to another room is irrelevant to the claims.

Accordingly, "base frame" is construed to mean "a stationary frame that supports the linking frame."

3. "Linking Frame"

The Ascion defendants would construe "linking frame" to mean "an adjustable frame section that is directly and physically attached to the first support frame, second support frame, and waist section of the mattress." Ruoeey Lung originally suggested construing "linking frame" to mean: "The linking frame is located above the base frame and is movably mounted on the base frame through the use of two slides. Each of the slides of the linking frame are connected to the base frame with two rollers rotatably mounted in the guide tracks of the base frame." At the Markman hearing, however, Ruoeey Lung suggested omitting reference to a "slide" and "rollers" in its definition, while continuing to refer to a "guide track." The concession is appropriate, although it does not quite go far enough.

It is clear from the claim language that the linking frame is mounted – "movably" – on the base frame. '100 Patent 4:29, 5:50, 6:33. It is also clear that upon the linking frame are mounted a first support frame, id. 4:30-31, 6:1-2, 6:34-35, a second support frame, id. 4:34-35, 6:5-6, 6:38-39, and a cushion, id. 4:39, 6:10, 6:43. It is also clear that the entire cushion is supported by the combination of the linking frame and the support and lift frames. Id. 4:39-42, 6:10-13, 6:43-46. That is about all that needs to be said about the linking frame. While the embodiments include a "guide track," it is not necessary or appropriate to read that limitation into the claims.

Accordingly, the “linking frame” may be defined as follows: “A frame laterally movable with respect to the base frame and upon which are pivotally mounted a first and second support frame, a lift frame being pivotally mounted upon the second support frame, all of which together forming structural support for the cushion.”

4. “First Support Frame”/ “Second Support Frame”

“First support frame” and “second support frame” can be construed together simultaneously because the parties propose similar constructions and raise similar arguments as to both terms. Ruoeey Lung would construe both terms as “having a first portion that is attached to the support bracket of the linking frame in such a way that the first portion pivots in relation to the support bracket while the support bracket does not rotate.” The Ascion defendants construe “first support frame” as “an adjustable frame section that is directly and physically attached to the head section of the mattress” and “second support frame” as “an adjustable frame section that is directly and physically attached to the thigh section of the mattress.”

Ruoeey Lung’s inclusion of reference to a “support bracket” is unjustified. Claim 1 includes an express limitation requiring a connection to the support bracket, but that limitation is not included in claims 14 and 18, and no claim mentions the second support frame being connected to a support bracket. Because the independent claims use “different words or phrases,” the doctrine of claim differentiation presumes that the independent claims have different scopes. Seachange Int’l, Inc. v. C-COR, Inc., 413 F.3d 1361, 1369 (Fed. Cir. 2005). Limitations from one independent claim should not be read into another independent claim. See id.; 5A Donald S. Chisum, Chisum on Patents § 18.03[6] (2007). The plain language of the claims therefore demonstrates that the inventor only contemplated connection to the support brackets in one of the three independent claims.

The Ascion defendants' proposed constructions are also unappealing in that, by focusing on how the frame is attached to the mattress cushion ("directly and physically attached to the . . . mattress"), they essentially regurgitate the debate over the meaning of the term "mounted." Their suggestion is useful, however, insofar as it relates the first and second support frames to their real-world function. The first support frame supports that part of the mattress cushion that is at the head of the bed and the second support frame supports that part of the mattress cushion where the user's legs would be. The specification clearly envisions a user lying on the cushion and describes adjustments of the cushion in relation to the user's body. E.g., '100 Patent 4:8-9 ("[W]hen the motorized bed is folded the rear portion of the cushion is lifted by the lift frame . . . so that the user's legs are lifted and supported by the cushion . . ."). Describing frame sections in relation to the user's body is therefore consistent with the specification.

Accordingly, "first support frame" is construed as "the section of the adjustable frame supporting the portion of the cushion where the user's head would rest" and "second support frame" is construed as "the section of the adjustable frame supporting the portion of the cushion where the user's legs would rest."

5. "Lift Frame"

"Lift frame" can be similarly construed. The Ascion defendants would construe "lift frame" as "an adjustable frame section that is directly and physically attached to the foot section of the mattress." Again, their proposal has the virtue of referring to the use of the invention and the vice of revisiting the "mounted" controversy. Ruoy Lung would construe "lift frame" thus: "The lift frame has a resting bar and a first portion. The first portion is in cooperation with the second support frame such that the lift frame pivots." Ruoy Lung has lifted this proposed construction almost verbatim from the specification: "The lift frame 50 has a first portion 51

pivots mounted on the second portion 42 of the second support frame 40 and a second portion provided with a resting bar 52 rested on the cushion 60.” ’100 Patent 3:15-19. Although claims must be interpreted in light of the specification, “courts must not import limitations into the claims from the specification.” Trading Techs. Int’l, Inc. v. eSpeed, Inc., 595 F.3d 1340, 1352 (Fed. Cir. 2010); Housey Pharm., Inc. v. AstraZeneca UK Ltd., 366 F.3d 1348, 1355 (Fed. Cir. 2004) (warning “not to import limitations from the specification that are not in the claims”). Ruoye Lung attempts to import the resting bar limitation into the independent claims although none of those claims expressly discloses a “lifting frame” with a resting bar. See Amgen, Inc. v. Hoechst Marion Roussel, Inc., 314 F.3d 1313, 1325 (Fed. Cir. 2003) (warning that “[t]he danger of improperly importing a limitation is even greater when the purported limitation is based upon a term not appearing the claim”).

For the reasons articulated in the Court’s construction of “first support frame” and “second support frame,” “lift frame” is construed as “the section of the adjustable frame supporting the portion of the cushion where the user’s feet would rest.”

D. “Two First Links” / “Two Second Links”

The Court declines to construe “two first links” and “two second links.” “Link” has an ordinary meaning, and there is no indication that the ’100 Patent uses the term differently from its ordinary meaning. See Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc., 249 F.3d 1341, 1349 (Fed. Cir. 2001) (finding no error in the district court’s refusal to construe “melting” where the term did not depart from its ordinary meaning). Moreover, both parties’ proposed constructions are substantially similar to the ordinary meaning of “link.” See O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co., 521 F.3d 1351, 1360 (Fed. Cir. 2008) (noting that a “district court is not obligated to construe terms with ordinary meanings” where the ordinary meaning resolves the parties’ dispute).

E. “Mediate Portion”

The Court also declines to construe “mediate portion.” The parties’ proposed constructions essentially offer only synonyms for the term. See C.R. Bard, Inc., 388 F.3d at 863 (“[M]erely rephrasing or paraphrasing the plain language of a claim by substituting synonyms does not represent genuine claim construction.”). “Mediate portion” will be given its plain and ordinary meaning.

F. “Slide”

First and second “slides” are described in claims 14-16 of the Patent (and incorporated by reference in claim 17). Ruoy Lung would construe the term “slide” to mean “two bars with one end connected to the linking frame and connected to a roller on the opposing end, with a bar in between the two bars.” The Ascion defendants would construe “slide” to mean “a portion of the linking frame that facilitates guided linear movement of the linking frame with respect to a base frame.”

Both proposed constructions impermissibly seek to import limitations from the specification into the claim term. See Trading Techs. Int’l, Inc., 595 F.3d at 1352 (“[C]ourts must not import limitations into the claims from the specification.”). Ruoy Lung seeks to import a “roller” limitation from the specification. While the specification refers to slides connected to a roller, claim 14 (the only independent claim disclosing slides) does not. In contrast, dependent claim 16 does add a limitation with regard to rollers. See Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 910 (Fed. Cir. 2004) (“[T]he presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim.”).

The Ascion defendants' definition is acceptable except for its reference to "linear" movement. The use of a slide implies "guided" movement, but it does not necessarily imply that the movement need be strictly linear, if by linear is meant movement in a straight line.

"Slides" is thus construed as "a portion of the linking frame⁴ that facilitates guided movement of the linking frame with respect to a base frame."

It is SO ORDERED.

/s/ George A. O'Toole, Jr.
United States District Judge

⁴ The slides must be a portion of the linking frame (as opposed to an independent element) because the '100 Patent does not specify (as it does for all other elements) how the slides are mounted or connected to the linking frame. Further support for this interpretation appears in the specification which states: "the second slide of the linking frame." '100 Patent 2:52.